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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FER 1 2 2015

IN THE MATTER OF:

INEOS USA LLC - Chocolate Bayou Plant P.O. Box 1488 Alvin, TX 77512

ATTENTION:

Mr. John Harvey, Plant Manager

Request to Provide Information Pursuant to the Clean Air Act

The United States Environmental Protection Agency (EPA) is requiring INEOS USA LLC (INEOS or you) to submit certain information about your facility in Alvin, Texas. Appendix B specifies the information that you must submit and a schedule for that submittal.

We are issuing this information request under section 114(a) of the Clean Air Act (the Act), 42 U.S.C. § 7414(a) which authorizes the Administrator of EPA to require the submission of information. The Administrator has delegated this authority to Phillip A. Brooks, Director of the Air Enforcement Division, Office of Civil Enforcement.

INEOS owns and operates emission sources at its Alvin, Texas facility. We are requesting this information to determine whether your emission sources are complying with the Act.

You must send all requested information to:

Robert Parrish, Attorney-Advisor USEPA - Air Enforcement Division MC 2242-A, Room 2119B 1200 Pennsylvania Ave., NW Washington, DC 20460 (202) 564-6946 parrish.robert@epa.gov

Under 40 C.F.R. Part 2, Subpart B, you may assert a claim of business confidentiality for any portion of the submitted information. You must specify the page, paragraph, and sentence when identifying the information subject to your claim. Appendix A specifies the assertion and substantiation requirements for business confidentiality claims.

You must submit all requested information under an authorized signature with the following certification:

I certify under penalty of law that I have examined and am familiar with the information in the enclosed Documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to section 113(c)(2) of the Act, and 18 U.S.C. §§ 1001 and 1341.

We may use any information submitted in response to this request in an administrative, civil, or criminal action.

This request is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 et seq., because it seeks collection of information from specific individuals or entities as part of an administrative action or investigation. To the extent that you respond with non-electronic media, to aid in our electronic record keeping efforts, please provide such Documents without staples. Paper clips, binder clips, and 3-ring binders are acceptable.

Failure to comply fully with this request for information may subject INEOS to an enforcement action under section 113 of the Act, 42 U.S.C. § 7413.

You should direct any questions about this request for information to Robert Parrish at

(202) 564-6946 or Patrick W. Foley at (202) 564-7978.

Date

Phillip A. Brooks, Director Air Enforcement Division

Office of Civil Enforcement

U.S. EPA

APPENDIX A

Confidential Business Information (CBI)

You may assert a business confidentiality claim covering all or part of the information you provide in response to this information request for any business information entitled to confidential treatment under Section 114(c) of the Clean Air Act (the Act), 42 U.S.C. § 7414, and 40 C.F.R. Part 2, subpart B. Under Section 114(c) of the Act, you are entitled to confidential treatment of information that would divulge methods or processes entitled to protection as trade secrets. Under 40 C.F.R. Part 2, subpart B, business confidentiality means "the concept of trade secrecy and other related legal concepts which give (or may give) a business the right to preserve the confidentiality of business information and to limit its use or disclosure by others in order that the business may obtain or retain business advantages it derives from its rights in the information." See 40 C.F.R. § 2.201(e).

Information covered by a claim of business confidentiality will be disclosed by EPA only to the extent, and by means of the procedures, set forth in Section 114(c) of the Act and 40 C.F.R. Part 2, subpart B. EPA will construe your failure to furnish a business confidentiality claim with your response to this information request as a waiver of that claim, and the information may be made available to the public without further notice to you.

To assert a business confidentiality claim, you must place on (or attach to) all information you desire to assert as business confidential either a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential" at the time you submit your response to this information request. Allegedly confidential portions of otherwise non-confidential Documents should be clearly identified, and may be submitted separately to facilitate identification and handling by EPA. You should indicate if you desire confidential treatment only until a certain date or until the occurrence of a certain event.

The criteria EPA will use in determining whether material you claim as business confidential is entitled to confidential treatment are set forth at 40 C.F.R. §§ 2.208 and 2.301. These regulations provide, among other things, that you must satisfactorily show that: (1) the information is within the scope of business confidentiality as defined at 40 C.F.R. § 2.201(e), (2) that you have taken reasonable measures to protect the confidentiality of the information and that you intend to continue to do so, (3) the information is not and has not been reasonably obtainable by legitimate means without your consent, and (4) the disclosure of the information is likely to cause substantial harm to your business's competitive edge. See 40 C.F.R. § 2.208 (a)-(d). Emission data, as defined at 40 C.F.R. § 2.301(a)(2), is expressly not entitled to confidential treatment under 40 C.F.R. Part 2, subpart B. See 42 U.S.C. § 7414(c); 40 C.F.R. § 2.301(e).

If you assert a claim of business confidentiality in connection with information and Documents forwarded in response to this request for information, in accordance with 40 C.F.R. § 2.204(e)(4), EPA is requesting that you answer the following questions with respect to any information or Document for which you assert a claim of business confidentiality:

- 1. What specific portions of the information are alleged to be entitled to confidential treatment? Specify by page, paragraph, and sentence when identifying the information subject to your claim.
- 2. For what period of time do you request that the information be maintained as confidential, e.g., until a certain date, until the occurrence of a specified event, or permanently? If the occurrence of a specific event will eliminate the need for confidentiality, specify that event. Additionally, explain why the information should be protected for the time period you've specified.
- 3. What measures have you taken to protect the information claimed as confidential from undesired disclosure? Have you disclosed the information to anyone other than a governmental body or someone who is bound by an agreement not to disclose the information further? If so, why should the information still be considered confidential?
- 4. Is the information contained in any publicly available material such as the Internet, publicly available databases, promotional publications, annual reports, or articles? Is there any means by which a member of the public could obtain access to the information? Is the information of a kind that you would customarily not release to the public?
- 5. Has any governmental body made a determination as to the confidentiality of the information? If so, please attach a copy of the determination.
- 6. For each category of information claimed as confidential, explain with specificity whether disclosure of the information is likely to result in substantial harm to your competitive position. Explain the specific nature of those harmful effects, why they should be viewed as substantial, and the causal relationship between disclosure and such harmful effects. How could your competitors make use of this information to your detriment?
- 7. Is there any other explanation you deem relevant to EPA's determination of your business confidentiality claim that is not covered in the preceding questions? If so, you may provide such additional explanation.

You must furnish comments to the above questions concurrent with your response to this information request if you have claimed any information as business confidential. See 40 C.F.R. § 2.204(e)(2). Pursuant to 40 C.F.R. § 2.205(b)(2), you may request an extension of this deadline. EPA will construe your failure to furnish timely comments as a waiver of your confidentiality claim, consistent with 40 C.F.R. § 2.204(e)(1). Please submit your comments to:

Robert Parrish, Attorney-Advisor USEPA - Air Enforcement Division MC 2242-A, Room 2119C 1200 Pennsylvania Ave., NW Washington, DC 20002 (202) 564-6946 (phone) parrish.robert@epa.gov

Pursuant to 40 C.F.R. § 2.205(c), you are hereby advised that information you submit as part of your comments may be regarded by EPA as entitled to confidential treatment if, when it is received by EPA, it is marked in accordance with 40 C.F.R. § 2.203(b). As required by 40 C.F.R. § 2.204(e)(6), you may assert a business confidentiality claim covering all or part of your response to these questions, as provided in 40 C.F.R. § 2.203(b). Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in Section 114(c) of the Clean Air Act (the Act) and 40 C.F.R. Part 2. EPA will construe the failure to furnish a confidentiality claim with your comments as a waiver of that claim, and the information may be made available to the public without further notice to you.

EPA plans to share the information provided in response to this information request with an EPA contractor. Pursuant to 40 C.F.R. § 2.301(h), EPA possesses the authority to disclose to any authorized representative of the United States information which might otherwise be entitled to confidential treatment. This paragraph serves as notice to INEOS, pursuant to 40 C.F.R. § 2.301(h)(2)(iii), of this contemplated future disclosure of material that INEOS may claim as confidential. The contractor is Eastern Research Group (ERG), the contract number is EP-W-09-033 and the information will be disclosed to the contractor for assistance in technical review, analysis, and evaluation. INEOS may submit any comments to EPA regarding EPA's intention to share information with ERG within five (5) working days after INEOS has provided EPA with information that it claims is subject to confidential treatment. Please contact Sounjay K. Gairola, if you have any questions at (202) 564-4003.

APPENDIX B

Request to Provide Information

I. INSTRUCTIONS

If information or Documents not known or not available to you as of the date of submission of a response to this request should later become known or available to you, you must supplement your response to EPA. Moreover, should you find, at any time after the submission of your response that any portion of the submitted information is false or misrepresents the truth, you must notify EPA of this fact as soon as possible and provide EPA with a corrected response. There are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Pursuant to the Clean Air Act, INEOS USA LLC (INEOS) must provide the following information pursuant to the following schedule: Responses to Questions 1-23 within thirty (30) days of its receipt of this request and Questions 24-35 within thirty (60) days of its receipt of this request. EPA requests that the non-narrative information be provided in editable form, in spreadsheet format, preferably in Excel and that narrative Documents be provided in searchable pdf format or in Word. For each Document produced in response to this information request, indicate on the Document, or in some other reasonable manner, the number of the Question to which it responds. Please submit all information for each question in a logically titled and sequenced manner.

If the information requested was previously submitted to EPA in response to another Section 114 Request, INEOS may either resubmit the information or may for each specific request, identify the date and addressee of the prior submittal and identify the location of the specific information within the prior submittal.

II. DEFINTIONS

"Ambient Air" or "air" shall mean that portion of the atmosphere, external to buildings, to which persons have access.

"Company" includes any officer, director, agent, or employee of INEOS, including any merged, consolidated, or acquired predecessor or parent, subsidiary, division, or affiliate thereof.

"Document" and "Documents" shall mean any object that records, stores, or presents information, and includes writings of any kind, formal or informal, whether or not wholly or partially in handwriting, including documentation solely in electronic form, including by way of illustration and not by way of limitation, any invoice, manifest, bill of lading, receipt, endorsement, check, bank draft, canceled check, deposit slip, withdrawal slip, order, correspondence, record book, minutes, memorandum of telephone and other conversations, including meetings, agreements and the like, diary, calendar, desk pad, scrapbook, notebook,

bulletin, circular, form, pamphlet, statement, journal, postcard, letter, telegram, telex, report, notice, message, analysis, comparison, graph, chart, interoffice or intra office communications, photo stat or other copy of any documents, microfilm or other film record, any photograph, sound recording on any type of device, any punch card, disc or disc pack; any tape or other type of memory generally associated with computers and data processing (together with the programming instructions and other written material necessary to use such punch card, disc, or disc pack, tape or other type of memory and together with printouts of such punch card, disc, or disc pack, tape or other type of memory); and (a) every copy of each document which is not an exact duplicate of a document which is produced, (b) every copy which has any writing, figure or notation, annotation or the like on it, (c) drafts, (d) attachments to or enclosures with any document, and (e) every document referred to in any other document.

"Facility" means INEOS's facilities in Alvin, Texas.

"Flare" means an open combustion device that uses an uncontrolled volume of Ambient Air to burn gases. A Flare may be partially enclosed (such as an enclosed ground flare) or equipped with a radiant heat shield (with or without a refractory lining), but is not equipped with a system to limit the volume of combustion air. A Flare may use auxiliary fuel. A Flare may be elevated or at ground level.

"Fuel Gas" means any gas generated at the Facility and combusted as a fuel, including purchased natural gas.

"Person" or "Persons" shall have the meaning set forth in Section 302(e) of the Act, 42 U.S.C. § 7602 (e), and includes an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent or employee thereof.

"Pilot Gas" shall mean all gas introduced through the pilot tip(s) of a Flare to maintain a flame.

"Purge Gas" shall mean the minimum amount of gas introduced between a Flare header's water seal and the Flare tip to prevent oxygen infiltration (backflow) into the Flare tip. Purge Gas is typically introduced at the base of the Flare. For a Flare with no water seal, the function of Purge Gas is performed by Sweep Gas, and therefore, by definition, such a Flare has no Purge Gas, although Sweep Gas may be introduced at different locations, including at the base of the Flare.

"Supplemental Gas" shall mean all gas introduced to a Flare to raise the heating value of Waste Gas.

"Sweep Gas" shall mean: For a Flare with a Water Seal: The minimum amount of gas introduced into a Flare header in order to: (a) prevent oxygen buildup, corrosion, and/or freezing in the Flare header; and (b) maintain a safe flow of gas through the Flare header, including a higher flow during hot taps. Sweep Gas in these Flares is introduced prior to and is intended to

be recovered by the flare gas recovery system; and <u>For a Flare without a Water Seal</u>: The minimum amount of gas introduced into a Flare header in order to: (a) prevent oxygen buildup, corrosion, and/or freezing in the Flare header; (b) maintain a safe flow of gas through the Flare header, including a higher flow during hot taps; and (c) prevent oxygen infiltration (backflow) into the Flare tip.

"Vent Gas" shall mean the mixture of all gases found just prior to the Flare tip. This gas includes all Waste Gas, Sweep Gas, Purge Gas, and Supplemental Gas, but does not include Pilot Gas, steam, or Assist Air.

"Waste Gas" shall mean the mixture of all gases from facility operations that is directed to a Flare for the purpose of disposing of the gas. "Waste Gas" does not include Sweep Gas, Purge Gas, Supplemental Gas, Pilot Gas, steam, or Assist Air.

"You" or "Yours", as used in each of the questions set forth in Section III of this information request, refers to, and shall mean, the company or corporation with which each addressee of this Section 114 letter is affiliated including its subsidiaries, division, affiliates, predecessors, successors, assigns, and its former and present officers, directors, agents, employees, representatives, attorneys, consultants, accountants, and all other persons acting on its behalf.

All terms used in this request will have their ordinary meaning unless such terms are defined in the CAA, 42 U.S.C. § 7401 et seq., and the implementing regulations.

Words in the masculine shall be construed in the feminine, and vice versa, and words in the singular shall be construed in the plural, and vice versa, where appropriate in the context of a particular question or questions.

III. QUESTIONS

- 1. For the No. 1 Olefins and No. 2 Olefins flares, for each hour from February 1, 2013 through December 31, 2013 and from July 8, 2014 through December 31, 2014, provide the Vent Gas mass and volumetric flow rates in pounds per hour and wet standard cubic feet per hour that was routed to each flare. Describe how the provided values were determined (i.e., calculated, monitored, or other methodology). If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operation) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 2. For the No. 1 Olefins and No. 2 Olefins flares, for each hour from February 1, 2013 through December 31, 2013 and from July 8, 2014 through December 31, 2014, provide the hourly average concentration of each constituent in the Vent Gas vented to each flare, with their respective molecular weights and BTU/scf values. Please describe how the provided values were determined (i.e., calculated, monitored, or other methodology). If

the provided values were calculated, please explain in detail the calculation. If the provided value were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operation) and identify its location on the process diagram to be provided pursuant to Question 22 below.

- 3. For the No. 1 Olefins and No. 2 Olefins flares, for each hour from February 1, 2013 through December 31, 2013 and from July 8, 2014 through December 31, 2014, provide the hourly average heating value, in BTU/scf, of the Vent Gas vented to each flare. Please describe how the provided values were determined (i.e., calculated, monitored, or other methodology). If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operation) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 4. For outlet of the Olefins No. 1 fuel gas system mix drum for each hour from January 1, 2013 through December 31, 2014, provide the mass and volumetric flow rates of gas in pounds per hour and standard cubic feet per hour. Please describe how the provided values were determined (i.e., calculated, monitored, or other methodology). If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operation) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 5. For outlet of the Olefins No. 1 fuel gas system mix drum for each hour from January 1, 2014 through December 31, 2014, provide the heat value of the gas in BTU/scf. Please describe how the provided values were determined (i.e., calculated, monitored, or other methodology). If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 6. For outlet of the Olefins No. 2 fuel gas system mix drum for each hour from January 1, 2013 through December 31, 2014, provide the mass and volumetric flow rates of gas in pounds per hour and standard cubic feet per hour. Please describe how the provided values were determined (i.e., calculated, monitored, or other methodology). If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 7. For outlet of the Olefins No. 2 fuel gas system mix drum for each hour from January 1, 2014 through December 31, 2014, provide the heat value of the gas in BTU/scf per. Please describe how the provided values were determined (i.e., calculated, monitored, or other methodology). If the provided values were calculated, please explain in detail the

- calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 8. For each individual stream routed to the Olefins No. 1 fuel gas system (including but not limited to: natural gas to fuel gas, recovered gas to fuel gas, tail gas streams to fuel gas, tail gas from OLE2 to fuel gas, hydrogen product to fuel gas, waste gas routed to boilers, and landfill gas routed to DB-901A) for each hour from January 1, 2013 through December 31, 2014, provide the mass and volumetric flow rates of gas in pounds per hour and standard cubic feet per hour. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 9. For each individual stream routed to the Olefins No. 1 fuel gas system (including, but not limited to: natural gas to fuel gas, recovered gas to fuel gas, tail gas to fuel gas, tail gas from OLE2 to fuel gas, hydrogen product to fuel gas, waste gas to boilers, and landfill gas to DB-901A), for each hour from January 1, 2013 through December 31, 2014, provide the hourly average heating value, in BTU/scf. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 10. For each individual stream that is routed to the Olefins No. 2 fuel gas system (including but not limited to: natural gas to fuel gas, recovered gas to fuel gas, tail gas to fuel gas, hydrogen product to fuel gas, waste gas to boilers, and landfill gas to DDB-901A), for each hour from January 1, 2013 through December 31, 2014, provide the mass and volumetric flow rates of gas in pounds per hour and standard cubic feet per hour. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 11. For each individual stream that is routed to the Olefins No. 2 fuel gas system (including but not limited to: natural gas to fuel gas, recovered gas to fuel gas, tail gas to fuel gas, hydrogen product to fuel gas, waste gas to boilers, and landfill gas to DDB-901A), for each hour from January 1, 2013 through December 31, 2014, provide the hourly average heating value, in BTU/scf. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.

- 12. Provide the hourly average firing rate in mmbtu per hour for each furnace, boiler, or heater at the Olefins 1 Unit for January 1, 2013 through December 31, 2014. Please identify each furnace, boiler, and heater on the process diagram to be provided pursuant to Question 22 below.
- 13. For the gas recovered by the Olefins Unit's Hydrocarbon Recovery System and subsequently burned at the Facility each hour from January 1, 2013 through December 31, 2014, provide the mass and volumetric flow rates of the gas in pounds per hour and standard cubic feet per hour and the hourly average heating value of the gas in BTU/sef.
- 14. For each of the No. 1 Olefins and No. 2 Olefins unit cracking furnaces (including both fixed-firing and non-fixed-firing), for each hour from January 1, 2013 through December 31, 2014, provide the fuel mass and volumetric flow rates in pounds per hour and standard cubic feet per hour. Please include an indication of which furnaces are fixed-firing. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 15. For each of the No. 1 Olefins and No. 2 Olefins unit cracking furnaces (including both fixed-firing and non-fixed-firing), for each hour from January 1, 2013 through December 31, 2014, provide the hourly average fuel heating value, in BTU/scf. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 16. For the No. 2 Polypropylene, No. 3 Polypropylene, and No. 4 Polypropylene flares, for each hour from February 1, 2013 through December 31, 2013 and July 8, 2014 through December 31, 2014, provide the Vent Gas mass and volumetric flow rates in pounds per hour and wet standard cubic feet per hour that was routed to each flare. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 17. For the No. 2 Polypropylene, No. 3 Polypropylene, and No. 4 Polypropylene flares, for each hour from February 1, 2013 through December 31, 2013 and July 8, 2014 through December 31, 2014, provide the hourly average concentration of each constituent in the Vent Gas vented to each flare, with their respective molecular weights and BTU/scf values. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.

- 18. For the No. 2 Polypropylene, No. 3 Polypropylene, and No. 4 Polypropylene flares, for each hour from February 1, 2013 through December 31, 2013 and July 8, 2014 through December 31, 2014, provide the hourly average heating value, in BTU/scf, of the Vent Gas vented to each flare. If the provided values were calculated, please explain in detail the calculation. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 19. For the No. 3 Polypropylene and No. 4 Polypropylene flares, for each hour from January 1, 2013 through December 31, 2014, provide the Vent Gas mass and volumetric flow rates in pounds per hour and wet standard cubic feet per hour that were recovered by the existing flare gas recovery system. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 20. For the No. 3 Polypropylene and No. 4 Polypropylene flares, for each hour from January 1, 2013 through December 31, 2014, provide the hourly average concentration of each constituent in the Vent Gas that was recovered by the existing flare gas recovery system. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 21. For the No. 3 Polypropylene and No. 4 Polypropylene flares, for each hour from January 1, 2013 through December 31, 2014, provide the hourly average heating value, in BTU/scf, of the Vent Gas that was recovered by the existing flare gas recovery system. If the provided values were monitored, describe the monitor (i.e., its manufacturer, model number, and principle of operations) and identify its location on the process diagram to be provided pursuant to Question 22 below.
- 22. Please provide a diagram of each fuel gas system at the facility that shows the following:
 - a. The origin of each natural gas, tail gas stream, hydrogen product, waste gas streams and each recovered gas stream contributing to the fuel gas system (including streams that by-pass a mixing tank, such as tail gas routed to boilers, and landfill gas routed to boilers);
 - b. All points of collection and mixing of Fuel Gas;
 - c. The location of all analyzers measuring BTU value, constituent concentrations (including GCs), or flow of Fuel Gas and streams that feed to Fuel Gas;
 - d. The location of all devices, including but not limited to boilers, process heaters, and flares in which Fuel Gas is and/or can be combusted; and
 - e. The locations of all flare gas recovery compressors that draw gas out of a flare header.

- 23. For each flare gas recovery system at the facility provide a diagram that shows the points that the flare gas recovery system draws from (i.e., flare gas header, process vent stream or other) and where the gas from the flare gas recovery system discharges (fuel gas system, process system feed, or other). Please state the number and sizes of the individual compressors in the each flare gas recovery system in scfm.
- 24. For each Flare, state whether the Flare and its associated closed vent system is used as the method of compliance with any federal regulation, including without limitation, the New Sources Performance Standards found at 40 C.F.R. Part 60, the National Emission Standards for Hazardous Air Pollutants found at 40 C.F.R. Part 61, and the National Emission Standards for Hazardous Air Pollutants for Source Categories found at 40 C.F.R. Part 63, (specifically including without limitation any leak detection and repair (LDAR) provisions promulgated under these Parts such as 40 C.F.R. § 60.482-4(c), or 40 C.F.R. § 63.165(c)). In each such case, identify the process unit or equipment that is/are the "affected facility" under the applicable Part and the specific Subpart that applies to the "affected facility."
- 25. Provide block process flow diagrams for the Facility as a whole, and for each process unit at the Facility, including units under construction or planned for construction, and a detailed plot plan of the Facility.
- 26. Provide copies of Title V permit annual or semi-annual compliance certifications submitted to a local agency, State, and/or EPA for the Facility since April 1, 2001.
- 27. Provide a list and copies of all engineering and/or feasibility studies of actual or possible changes for all process units at the Facility since January 1, 2000, whether such changes were implemented or not.
- 28. Provide a list of all permits to construct, permits to operate, and/or orders from all State and/or local agencies regarding any air pollutant emissions for the Facility issued since January 1, 2000. In such list, include the following information:
 - a. Specify the date of permit or order issuance;
 - b. Provide a list of equipment that was modified or constructed pursuant to the permit or order;
 - c. State whether the permit is minor new source review (minor NSR), prevention of significant deterioration (PSD), major non-attainment NSR permit or other type of permit; and
 - d. If a permit is a PSD or major non-attainment NSR permit, specify the pollutants for which such permit was issued.
- 29. Provide copies of all of the following documents submitted to or from all local agencies, the State, and/or EPA for the Facility since January 1, 2000:

- a. All air permits or orders;
- b. All air permit or order applications; and
- c. All correspondence related to such permit applications, including all supporting documentation.
- 30. Provide a list of all documents that estimate the air pollutant emissions changes for any project undertaken at the Facility since January 1, 2000.
- 31. Provide a list of all authorizations for expenditure (AFE), capital appropriation requests (CAR), and/or any other such documents that authorize expenditures for the Facility since January 1, 2000. Please provide this list in electronic format and include at least the following details:
 - The internal number used to identify the AFE or CAR;
 - b. The date that the AFE or CAR was submitted;
 - c. Cost of the project proposed by the AFE or CAR; and
 - d. A brief description of the project proposed by the AFE or CAR.
- 32. Provide copies of all AFEs, CARs, and/or any other such Document that authorized expenditures on any cracking furnace, Flare, Flare tip, Flare header, Flare knock out drum, Flare gas recovery system, tie-in to a Flare header, and other components of a Flare system, since January 1, 2000.
- 33. Provide a list of each instance where new piping or larger piping was physically connected to a Flare header since January 1, 2000. The list must identify the following:
 - The header and the Flares that are fed by the header;
 - b. The maximum and average flows of gas added to the header in scfm;
 - c. An estimate of the average concentration of each constituent of the the gas added to the header; and
 - d. The date that the new or larger piping was physically connected to the Flare header.
- 34. Provide copies of the last five annual emission inventories submitted to a local or state agency, and/or EPA and all documents that are or were used to prepare the Facility's annual emissions inventory. Provide a detailed description of how the annual emissions inventory is prepared.
- 35. Provide a diagram of each Flare system at the Facility that shows the locations of each pressure, flow, net heating value, molecular weight or constituent concentration measurement, knockout drum, water seal, purge gas, sweep gas, and supplemental gas injection point. In addition, for each Flare, provide a list of all gas streams that are routed to the flare on a continuous or intermittent basis. In this list, include, at a minimum, the

actual volume of each stream that is burned in the flare.